CLAIMS

What is claimed is:

1   1.   A signal router, comprising:

2   a signal transducer configured to write J

3 identical images of a first set of data from N inputs to J

4 random access memories during a first time interval;

5   (M) respective bit selectors each configured to

6 read respective portions of a respective one of said J

7 identical images;

8   each of said (K) respective bit selectors being

9 further configured to construct a respective one of K

10 output data streams during a second time interval.

1   2.   A signal router as in claim 1, wherein said

2 signal transducer is further configured to write J

3 identical images of a second set of data from said N inputs

4 to said K random access memories during said second time

5 interval.

1   3.   A signal router, as in claim 1, wherein said

2 signal transducer includes a buss to which said first set

3 of data is applied and addressing controllers configured to

4 write data from said buss to said random access memories,

5 whereby said J identical images are written.

1   4.   A signal router, comprising:

2   a controller programmed to store identical images

3 of data from said N inputs in K memories;

4   said controller being further programmed to read

5 respective bits of said data from each said K memories to

6 produce K respective output data streams, whereby N inputs

7 are mapped to K outputs.

1   5. A router as in claim 4, further comprising a

2 data buss connected to receive said N inputs and distribute

3 them to said K memories.

1   6. A router as in claim 5, wherein a bit rate

2 of each of said K outputs is less than a bit rate of said

3 buss.

1   7. A method of routing data from N inputs to M

2 outputs, comprising the steps of:

3   applying data from said N inputs to a data buss

4 by means of at least one of time and space multiplexing;

5   imaging said data on M random access memories

6 from said buss;

7   reading respective sets of bits from said random

8 access memories to form respective ones of said signals

9 ultimately demultiplexed to form said M outputs.